Maryland Historical Trust

Maryland Inventory of Historic Properties number:____

Reviewer, OPS:_Anne E. Bruder_

Reviewer, NR Program: Peter E. Kurtze_

Name: HARMONDY	RD. BRIDGE			
The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.				
	MARYLAND HISTORICAL TRUST			
Eligibility Recommended X	Eligibility Not Recommended			
Criteria: A B C Comments: Polytonia	D Considerations: A B C D E F G None Will be relocated on Freends The stern of th			

Date:__3 April 2001___

Date: __3 April 2001_

grad

INDIVIDUAL PROPERTY/DISTRICT MARYLAND HISTORICAL TRUST INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: <u>Harmony Road Bridge (BR #16-24)</u>	Survey Number: F-4-40
Project: <u>Replace Harmony Road Bridge</u>	Agency: FHWA/Frederick County
Site visit by MHT Staff: X no yes Name	Date
Eligibility recommended X Eligibility not recommended	mended
Criteria: <u>X</u> ABCD Considerations:A	BCDEFGNone
Justification for decision: (Use continuation sheet if n	ecessary and attach map)
Under Criteria A, the Harmony Road Bridge derives its significated development of transportation in Frederick County. important step in engineering design and a uniquely Amerintensive experimentation in the 19th century. Relatively bridges were the most popular form of bridge construction 1870s and 1930s. Large numbers were built to span small vehicular movement and communication throughout the develop had scores of such bridges; however, as technology and using have been replaced at an increasing rate. According to information that the sense of Products by the Frederick County Department of Products remain on County roads. The Harmony Road Bridge axample of the sort of modest structure once common through the Harmony Road Bridge, a single span, pin connected, stee 1918. It retains its identifying plaque, which names M. D. identifies Lackawanna as the manufacturer of the steel members are considered by M. D. Porman of Lackawa bridges may be products of small contractors with experience became proficient at assembling pre-manufactured pieces from the Lackawanna." Documentation on the property/district is presented in:	Metal truss bridges represent arrican achievement, the result or ly cheap and easy to build, these in in Frederick county between the crossings, greatly facilitating bring County. Frederick County once e requirements have changed, they formation provided to the Maryland Public Works, only 24 metal truss or represents an increasingly rare ghout rural Maryland. The pony truss bridge was built in Porman as contractor. An imprint pers. The bridge is similar to the ne inventory form, this privately anna steel, "suggesting that these ce in wood bridge construction who com the major steel companies such
Preparedby: <u>JanetDavis</u>	
Elizabeth Hannold Jan Reviewer, Office of Preservation Services	uary 9, 1995 Date
NR program concurrence: yes no not applicab	J. 3. 95
Reviewer, NR program	Date

OWNED

Survey	No.	F-4-40	

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

Geographic Region:		
Western Shore (A	all Eastern Shore counties, and Cecil) Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)	
Piedmont (E	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)	
Western Maryland (F	(Allegany, Garrett and Washington)	
Chronological/Developmental Peri	lods:	
Paleo-Indian Early Archaic Middle Archaic Late Archaic Early Woodland Middle Woodland Late Woodland/Archaic Contact and Settlement Rural Agrarian Intensification Agricultural-Industrial Transiti Industrial/Urban Dominance Modern Period Unknown Period (prehistorial	A.D. 1870-1930 A.D. 1930-Present	
Prehistoric Period Themes:	IV. Historic Period Themes:	
Subsistence Settlement Political Demographic Religion Technology Environmental Adaption	Agriculture Architecture, Landscape Architecture, and Community Planning Economic (Commercial and Industrial) Government/Law Military Religion Social/Educational/Cultural X Transportation	
Resource Type:		
Category: <u>Structure</u>		
Historic Environment: Rural		
Historic Function(s) and Use(s)	: _Transportation/Road related/bridge	

The Harmony Road Bridge No. 16-24 is a single span, Pratt pony truss steel bridge built in 1918 across the Little Catoctin Creek. It has pinned connections, a wood deck, and concrete abutments. Inclined end posts at each end and two panels with diagonal bracing are connected by a lattice railing on each side of the structure. A plaque with the date of construction, the names of the County Commissioners, Clerks, and the contractor, M.D. Porman, is located on the railing near the southeast side. An imprint by the steel beam supplier, Lackawanna, is also visible near the plaque. The bridge is a good example of the typical rural road bridge erected by Frederick County in the first quarter of the 20th century. A nearby bridge at a second crossing of Little Catoctin Creek, which is of similar design but without a plaque, the Old Harmony Road Bridge (F-4-24), may be of the same year and provenance. The old bridge is now privately owned and not open to vehicular traffic.

MARYLAND INVENTORY OF HISTORIC BRIDGES HISTORIC BRIDGE INVENTORY MARYLAND STATE HIGHWAY ADMINISTRATION/ MARYLAND HISTORICAL TRUST

MHT No. <u>F-4-40</u>

SHA Bridge No. F-1624	Bridge name <u>Harmony Road Bridge</u>
LOCATION: Street/Road name and number [facility carried] Harmony Road over Little Catoctin Creek
City/town Harmony	Vicinity
County Frederick	
This bridge projects over: Road	Railway Water X Land
Ownership: State County _	Municipal Other
National Register-listed	signated historic district? Yes No <u>X</u> district National Register-determined-eligible district ct Other
Name of district	
BRIDGE TYPE: Timber Bridge: Beam Bridge:	Truss -Covered Trestle Timber-And-Concrete
Stone Arch Bridge	
Metal Truss Bridge X	
Movable Bridge: Swing: Vertical Lift	Bascule Single Leaf Bascule Multiple Leaf Pontoon
Metal Girder: Rolled Girder: Plate Girder:	Rolled Girder Concrete Encased Plate Girder Concrete Encased
Metal Suspension	
Metal Arch	
Metal Cantilever	
Concrete: Concrete Arch Other Type I	Concrete Slab _ Concrete Beam Rigid Frame

DESCRIPTION:

Setting:	Urban	Small town	Rural	<u>X</u>
_				_

Describe Setting:

Bridge F-1624 carries Harmony Road over Little Catoctin Creek approximately 2 mile southwest of Route 40. Harmony Road runs generally in a northeast, southwest direction in the area while Little Catoctin flows to the west. The bridge is situated in pasture land. The area is relatively undeveloped with one farm near the bridge.

Describe Superstructure and Substructure:

Bridge F-1624 is a single span, Pratt pony truss measuring 63'-6" in total length. It has 4 panels, measuring 15'-9" each. Endposts are inclined. The top chord is a built-up section of 2 channels with cover plate and stay bars. The bottom chord consists of double eyebars connected with pins. The floor system comprises I section floorbeams and eight I section stringers. The verticals consist of paired angles and lacing bars and diagonals are double eyebars with single cylindrical counters. All connections are pinned. The clear width of the roadway is 12'-10". There is no sidewalk on the bridge and the truss members are protected by a lattice guard rail. The bridge has a 20 degree skew alignment. The abutments are concrete with u-shaped concrete wingwalls on the southwest and flared on the northeast. There is one plaque on the bridge, on the southeast parapet identifying the builder. Information on plaque is not clear, having been obscured by layers of paint; that information includes the County Commissioners, Clerks, and the contractor M.D. Porman. An imprint indicating the steel manufacturer, Lackawanna, is visible near the plaque.

Discuss Major Alterations:

The inspection report available at Frederick County does not indicate that major alterations have taken place on this bridge.

HISTORY:

WHEN was the bridge built	<u>1918</u>		
This date is: Actual X	1	Estimated	
Source of date: Plaque \underline{X}	Design plans	County bridge files/inspection form	
Other (specify):			

WHY was the bridge built?

To provide a reliable crossing for Harmony Road over Little Catoctin Creek.

WHO was the designer?

Unknown.

WHO was the builder?

The bridge retains its identifying plaque, which names M.D. Porman as contractor. An imprint identifies Lackawanna as the manufacturer of the steel members.

WHY was the bridge altered?

The bridge was not altered.

Was this bridge built as part of an organized bridge-building campaign?

Bridge F-1624 was not built as part of an organized bridge-building campaign.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:					
A - Events X B- Person					
C- Engineering/architectural character					

Was the bridge constructed in response to significant events in Maryland or local history?

This bridge was one of a large number of metal truss bridges built in Maryland in the late nineteenth and early twentieth centuries. Metal trusses built in the late nineteenth century were frequently of wrought iron construction and featured pinned connections. By the turn of the century, steel was the material of choice and connections were sometimes pinned and sometimes rivetted. By 1920, the truss type exhibited more heavily configured members and rivetted connections.

General Truss Bridge Trends

The first metal truss bridges in the United States were built to carry rail and canal traffic. A rapidly expanding railroad network, with needs for long spans, heavy load capacity and rapid construction, served as the impetus for advances in metal truss technology from the mid-nineteenth century to its close. The earliest metal truss forms of the United States were patented and introduced between 1830 and the Civil War, including the popular Pratt (1844) and Warren (1848) types.

From the Civil War through the end of the century metal truss technology improved in response to increasing loads and speeds, and new transportation needs; steel began to replace iron; numerous "bridge works" and "iron works" were established in the eastern U.S. for fabricating and shipping the truss components to the bridge site; and expanding road networks required a low cost, expedient bridge type.

General Trends in Maryland

In Maryland, the earliest metal truss bridges carried rail lines, including the Baltimore & Ohio (B&O) and the Baltimore and Susquehanna Railroads. As early as 1849, B&O Chief Engineer Benjamin H. Latrobe recommended the construction of metal truss bridges for "large crossings"; in 1850 he reported "much satisfaction" with the future of iron bridges after constructing the metal truss bridge at Savage.

Numerous metal truss bridges were manufactured in Baltimore, the early industrial hub of bridge building activity in the state, from the 1850s through the 1880s. Among the early bridge builders in the 1850s and 1860s were former B&O employees, B.H. Latrobe and Wendell Bollman, founders of competing Baltimore bridge building companies. Historical research identified more than twenty-five bridge companies that built truss bridges in the state between 1850 and 1920. Among these were the Wrought Iron Bridge Company, King Iron Bridge Company, Patapsco Bridge and Iron Works, Baltimore Bridge Company, Pittsburg Bridge

Company, Penn Bridge Company, Smith Bridge Company, Groton Bridge and Manufacturing Company, Roanoke Iron and Bridge Company, York Bridge Company, Vincennes Bridge Company, Bethlehem Steel Company, American Bridge Company.

The location of the Baltimore & Ohio Railroad, Baltimore bridge fabricators, and the urban needs of the city and its environs resulted in the erection of numerous early truss bridges in Baltimore and the surrounding area. Initially constructed for the railroads, their use quickly came to replace the earlier timber bridges on Baltimore roads.

From Baltimore, the use of the metal truss spread to other parts of the state, with County Commissioners in the Piedmont and Appalachian Plateau counties erecting numerous metal trusses from the 1870s to the early twentieth century. Frederick County erected numerous truss spans during that time. Records indicate that in the early twentieth century the York Bridge Company built a number of metal trusses there, primarily Pratt but also Warren and Parker trusses. In the same county, King Iron Bridge Manufacturing Company erected several bowstring pony truss bridges.

Frederick County Trends

In 1854, the weekly <u>Frederick Examiner</u> announced that wrought iron was being used as a bridge material and proved to be stronger than the wood truss construction that had been in general use. At that time it was hoped that such an iron bridge would soon be constructed in Frederick County.

It appears from the Frederick County Commissioners Minutes that iron truss bridges became popular in the area during the 1870s. Records show that a variety of companies, including Groton Manufacturing Company, Groton, New York; Wrought Iron Bridge Company, Canton Ohio; King Iron Bridge Company, Cleveland Ohio; and the Pittsburg Bridge Company, Pittsburgh, Pennsylvania, constructed bridges throughout the county. Iron truss bridges were an innovative step toward good bridge engineering design in the nineteenth century and were the pride of every community.

Truss bridges appear to have been the most popular form of bridge construction in Frederick County between the 1870s and 1930s. Large numbers were built to span small crossings, greatly facilitating vehicular movement and communications throughout the developing county. Frederick County once had scores of such bridges; however, as technology and use requirements have changed, they have been replaced at an increasing rate. According to information provided to the Maryland Historical Trust by Frederick County Department of Public Works, as reported in a prior Maryland Historical Trust survey form, 24 metal truss bridges remained on county roads.

Fifteen extant metal truss bridges were identified in Frederick County as a result of SHA's 1994-1995 historic bridge survey:

F-312, single span Pratt pony truss built c. 1900

F-405, single span Pratt through truss built in 1882

F-407, single span Pratt through truss built in 1914

F-506, single span Parker truss built in 1908

F-508, single span Pratt pony truss built in 1908

F-510, single span Pratt through truss built in 1914

F-1202, single span Pratt pony truss built c. 1900-1910

F-1624, single span Pratt pony truss built in 1918

F-1701, single span Pratt through truss built c. 1890-1900

F-2203, single span, double intersection Pratt truss built 1878 F-2204, single span Pratt through truss built c. 1910 10017, eight span camelback truss built in 1939 10018, a single span Pratt truss built in 1934 10029, single span Camelback truss built in 1931 10055, two Pratt through trusses built in 1932

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Metal truss bridges were reliable spans, providing safe crossings throughout the year in most weather conditions. In rural areas, such as this one, they served to facilitate local travel, and probably did not have a significant impact on the growth and development of the area.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?

The bridge is not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?

The Harmony Road Bridge represents an increasingly rare example of the small span structures that were once common throughout rural Maryland. It is an late example of a pin-connected lightly structured pony truss.

Does the bridge retain integrity of important elements described in Context Addendum?

This bridge retains integrity of location, design, setting, materials, workmanship, feeling and association. Its components appear to be intact.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

Bridge F-1624 is not a significant example of the work of a manufacturer, designer or engineer. However, it represents that work of a local contractor. The bridge is similar to the nearby Old Harmony Road Bridge (F-4-40). According to the MHT inventory form, this privately owned bridge was also constructed by M.D. Porman of Lackawanna steel, "suggesting that these bridges may be products of small contractors with experience in wood bridge construction who became proficient at assembling pre-manufactured pieces from the major steel companies such as Lackawanna."

Should the bridge be given further study before an evaluation of its significance is made?

Bridge F-1624 is listed in the Maryland Historical Trust's Inventory of historic sites. No further study is recommended.

BIBLIOGRAPHY:

County inspection/bridge files \underline{X}

SHA inspection/bridge files

Other (list):

County survey files of the Maryland Historical Trust

P.A.C. Spero & Company and Louis Berger & Associates, *Historic Highway Bridges in Maryland: Historic Context Report*. Prepared for the Maryland State Highway Administration.

SURVEYOR:

Date bridge recorded February 1996 / revised August 1998

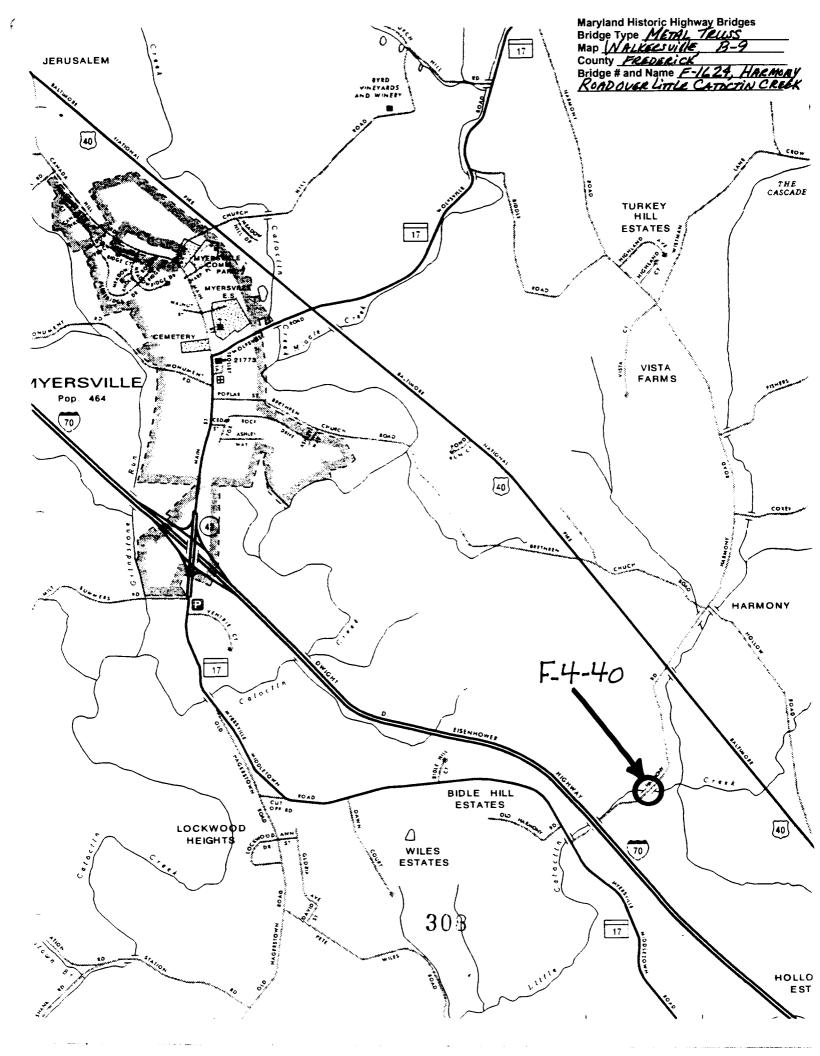
Name of surveyor Paula Spero/Colin Farr

Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, Maryland

21204

Phone number 410-296-1635

FAX number 410-296-1670



F-4-40 Harmony Road Bridge Myersville Frederick County

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Piedmont

(Harford, Baltimore, Carroll, Frederick, Howard, Montgomery

Counties, and Baltimore City)

Chronological/Development Period:

Industrial Urban Dominance A.D. 1870-1930

Prehistoric/Historic Period Themes
Transportation

Resource Types:

Category: Structure

Historic Environment: Rural

Historic Function and Use:

Transportation/road-related/bridge

Known Design Source: None

Maryland Historical Trust
State Historic Sites Inventory Form

MARYLAND INVENTORY OF

Survey No. F-4-40

Magi No.

DOE __yes __no

1. Nam	10 (indicate pr	referred name)		
historic				
and/or common	Harmony Road Bridge	e #16 - 24		
2. Loca	ation			
street & number	r Harmony Road ov	er Little Catoctin (Creek	not for publication
city, town	Myersville	X vicinity of	congressional district	6th
state	Maryland	county	Frederick	
3. Clas	sification			
Category district building(s) _X structure site object	Ownership X public private both Public Acquisition in process being considered not applicable	Status _X_ occupied unoccupied work in progress Accessible yes: restricted yes: unrestricted no	Present Use agriculture commercial educational entertainment government industrial military	museum park private residence religious scientific _X transportation other:
4. Owr	er of Prope	rty (give names a	nd mailing address	es of <u>all</u> owners)
name	Frederick County	Commissioners		
street & number	Engineering Dep	ot. , 8 E. 2nd Stree	et telephone r	no.: (301)696-2928
city, town	Frederick	state	and zip code Md.	21701
5. Loca	ation of Leg	al Description	on	
courthouse, regi	istry of deeds, etc.	rederick County Cour	rthouse	liber
street & number	100 W. Patrick	Street		folio
city, town	Frederick		state	Md. 21701
6. Rep	resentation	in Existing	Historical Surv	veys
iltle				
date			federal sta	te county loca
epository for su	urvey records			
city, town			state	

7. Description

Survey No. F-4-40

good ruins altered moved date of move fair unexposed	Condition deteriorat excellent deteriorat good ruins fair unexpose	_X_ altered	Check one X original site moved date of move	
--	--	-------------	---	--

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

CONTRIBUTING RESOURCE COUNT: 1

The Harmony Road Bridge No. 16-24 is a single span pony Pratt truss steel bridge built in 1918, which is located on Harmony Road at the crossing of Little Catoctin Creek, near Myersville, Frederick County, Maryland. This bridge should not be confused with the Old Harmony Road Bridge (F-4-24), which is located on private property about 200 yards south of the subject bridge, at another crossing of Little Catoctin Creek. The Old Harmony Road Bridge is no longer in regular vehicular use, the route of Harmony Road having been relocated to the east. The Harmony Road Bridge No. 16-24 has a plaque on the bridge giving its date, the names of the County Commissioners and Clerks, and the name of the contractor, M. D. Porman.

The bridge has two panels with diagonal braces, inclined end posts, and pinned connections. The deck is wood with steel floor beams. The sides of the bridge have lattice railings applied inside the panels. The identifying plaque is attached to the railing on the east side of the bridge. On the end post near the plaque is the imprint of the steel supplier, Lackawanna. The steel portions of the bridge have been painted several times, most recently with green paint, which partially obscures the lettering of the plaque. The abutments are concrete.

Period prehis 1400 1500 1700 1800 X 1900-	-1499 archeology-historic -1599 agriculture -1699 architecture -1799 art -1899 commerce		ng landscape architectur law literature military music	science sculpture social/ humanitarian theater
Specific	dates 1918	Builder/Architect	M.D. Porman, contracto	or
	Applicable Criteria: <u>x</u> A and/or Applicable Exception:A Level of Significance:	BCD	<u> </u>	

F-4-40

Survey No.

8. Significance

Prepare both a summary paragraph of significance and a general statement of history and support. The Harmony Road Bridge No. 16-24 is a good example of the type of small steel truss bridges built by Frederick County during the first decade of the 20th century at rural stream crossings. The nearby Old Harmony Road Bridge (F-4-24) was estimated to be an 1895 bridge, but its similarity with this structure suggests that they might be of the same date, 1918. No. 16-24 has an identifying plaque naming M. D. Porman as contractor and the Lackawanna imprint on the steel beams, further suggesting that these bridges may be the products of small contractors with experience wood bridge construction who became proficient at assembling pre-manufactured pieces from the major steel companies such as Lackawanna. This method of bridge construction during the early 20th century has been documented in Virginia by the Virginia Highway & Transportation Research Council and it is ssible to assume that the same procedure was used in Frederick County where the me of a known bridge construction company is not mentioned.

9. Ma	ajor Bibli	ographica	I Reference	Survey No. F-4-40
Histon			cal History, Techni 1977. "Bridge Trus	cal Leaflet 95, s Types: A guide to dating
(Continu	ued on separate	sheet)		
<u>10. G</u>	ieograph	ical Data		
Acreage of a Quadrangle UTM Refere		own, Md.		Quadrangle scale 1:24000
Zone E C	Easting N	mplete UTM refer	B	ing Northing
List all sta	ites and counties		apping state or county	_
state		code	county	code
state		code	county	code
11. F	orm Prep	pared By		
name/title	Janet L. Da	avis, Historic Si	ites Surveyor	
organization	Frederick (ounty Planning {	& Zoning Dept. _{date}	March 1992
street & nun	nber 12 E. Churc	ch Street	telepho	ne 696-2958
city or town	Frederick		state	Md. 21701
	an Act of th Code of Mary The survey a record purpo	ne Maryland Legis vland, Article 41 and inventory are	orical Trust Ci	in the Annotated 1974 supplement. r information and

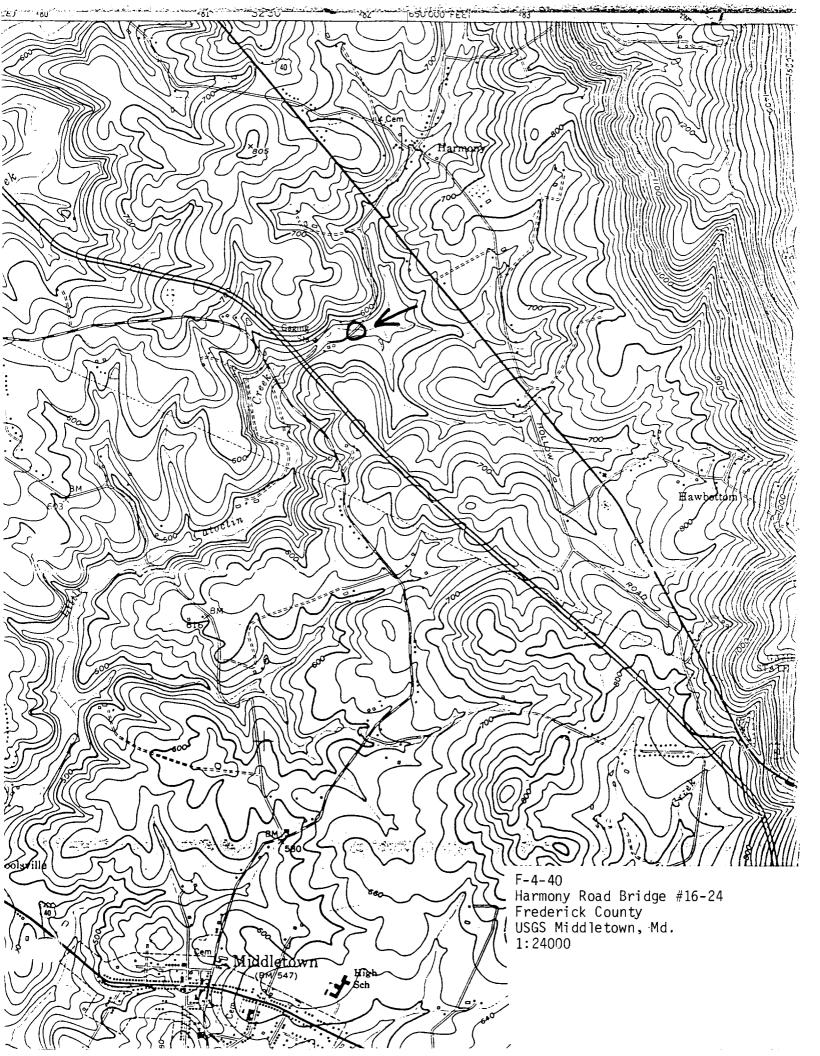
(301) 269-2438

Survey No. F-4-40

Harmony Road Bridge No. 16-24 Frederick County

9.1 Bibliography (Continued)

Virginia Highway & Transportation Research Council. "A Survey and Photographic Inventory of Metal Truse Bridges in Virginia", 1865-1932. May 1975, p. 13





1224 Star app F-4-4 2) Harmony Rood Bridge 3) Frederick 4) Colen Farr 5) Feb. 896 6) PAG Spen & Co, HOW Chesapeake Am, #4/2 2) Harmony Rd Bridge, Southwest approach 811 8



NE ACC F 1624 T-4-4 2) Harmony Road Bridge 3) Frederick 4) Colin Farr 5) Tebe 1996 @ P.A.C. Speroclo, 40 W Cheseprake for the 2, Towson ND n) Harmony Ed Bridge, northeast approach × 2 + 5



wast decoluse 12 214 F-4--Araymony Road Bridge 3) Frederick 4) Colin Farr 5) Feb 1996 6) RAC. Sperof Company, 40 W Chesapake Au #4/2 1 Towson AD 21204 7) Harmony Rd Bridge , west elevation 8) 3 4 8



F1624 West huss 1) F-4-40 e) Harmon Rd Bridge 3) Fredorick 4) Colin Farr 5) Feb. 1996 6) PA.C. Spero & Co, 40 W Chesaprake Aus 1+0 7) Harmony Rd Bir west town



Verticale F1624 1) F-4-40 2) Harmony Rd. Bridge 4) Onlin Far 5) feb, 1990 6) P.H.C. Span & Co, 40 W. Chesa pooks How #412 my Larmony Rd Bridge Verticals 8 5 of 7



DF=4=40 2) Harmony Ad Brile 3) frederick 4) Colin Fare 5) Feb. 1996 1) PAIC Sporos Company HOW Chempase Are Ly 8)6 of 8



1624 Doeberelous DF-4-40 2) Harmon Bl Brogs 3) Frederick 1 Colufar 5) Feb 1992 B) PAC Speco + Company, 42 W Chesapealo Har Touson 40 2124 7) Harmony Kood Bridge underdick x)71 C+ 8



Bridge Plate 16.24 DF-4-40. 2) Hat mony Rd Bridge 3) Frederick 4) Colin Farr 9) Feb 1996 6) P.A.C. Spero & Co., 40 W. Chesapeake Ave. = 4/2 Towson, NO 2/204 7) Harmon Rd Bridge Bridge Plate 8) 9 4 8



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